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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,386	03/12/2004	Yoshito Toyoda	119060	6051
25944	7590	01/24/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER VO, ANH T N	
			ART UNIT 2861	PAPER NUMBER

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/798,386

Applicant(s)

TOYODA ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/12/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The references cited on PTO 1449 have been considered.

## **CLAIM REJECTIONS**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 5-6 are rejected under 35 USC 103 (a) as being unpatentable over in view Kawamura (Us Pat. 4,577,203) in view of Koitabashi et al. (DE 29 08 091A1).

Kawamura discloses in Figures 5-7 an ink jet recording apparatus comprising:

- an ink container (30) including ink for ink-jet recording and a package (31) in which said ink is accommodated, wherein said ink includes an inert gas (such as air or nitrogen or oxygen) dissolved therein (Figure 6, column 4, line 8); and

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- wherein said package (31) includes an ink bag having a laminar structure which includes at least a resin film layer (polyethylene layer) and a metal film layer (aluminum foil) that are superposed on each other, and an ink inlet formed of resin; wherein said laminar structure of said ink bag is one of a laminar structure consisting of aluminum foil on which a polyethylene film is laminated (Figure 6, lines 37-40).

However, Kawamura does not teach that an amount of oxygen dissolved in said water-based ink is less than 3 mL/L.

Nevertheless, Kobayashi et al. disclose an amount of oxygen dissolved in said water-based ink is less than 3 mL/L (Basic-Abstract).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Kobayashi et al. in the Kuwamura ink container for the purpose of avoiding changes in the properties of ink.

Claims 2-3 are rejected under 35 USC 103 (a) as being unpatentable over in view Kawamura (Us Pat. 4,577,203) in view of Koitabashi et al. (DE 29 08 091A1) as applied in claim 1 and further in view of Nakano et al. (JP 2001091952A).

Kawamura in view of Koitabashi et al. do not disclose that an inert gas is dissolved in said water-based ink such that said inert gas is in a substantially saturated state and/or a saturated state in said ink.

Nakano et al. disclose in Figures 1 and 4 an ink container for an ink supply device comprising an ink container (21) that contains an inert gas is dissolved in said water-based ink such that said inert gas is in a substantially saturated state and/or a saturated state (not absorbed to ink) in said ink (see Solution).

It would have been obvious at the time the invention was made to a person having

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ordinary skill in the art to incorporate the teaching of Nakano et al. in the Kuwamura ink container, as modified, for the purpose of replacing a gas that dissolved in ink with an inert gas.

Claim 4 is rejected under 35 USC 103 (a) as being unpatentable over in view Kawamura (Us Pat. 4,577,203) in view of Koitabashi et al. (DE 29 08 091A1) as applied to claim 1 and further in view of Shimada et al. (Pub. No.: US 2002/0080213)

Kawamura in view of Koitabashi et al. do not disclose that an inert gas comprises argon

Shimada et al discloses that the inert gas comprises argon (page 3, section 0067).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Shimada et al. in the Kuwamura ink container, as modified, for the purpose of avoiding oxygen dissolving much in ink by providing argon.

Claim 7 is rejected under 35 USC 103 (a) as being unpatentable over in view Kawamura (Us Pat. 4,577,203) in view of Koitabashi et al. (DE 29 08 091A1) as applied to claims 1 and 5 and further in view of Kubota et al. (US Pat. 5,611,461).

Kawamura in view of Koitabashi et al. do not disclose that said resin film layer is polyamide.

Kubota et al. disclose in Figure 1 an ink container comprising said resin film layer is polyamide (column 3, lines 38-60).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Kubota et al. in the Kuwamura ink container, as modified, for the purpose of providing an ink bag that is formed with polyamide layer to seal external air or gas entering an ink container.

***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art reference (US Pat. 4,429,320; US Pat. 4,928,126; US Pat. 6,585,362) cited in the PTO 892 form show an ink cartridge that is deemed to be relevant to the present invention. This reference should be reviewed.

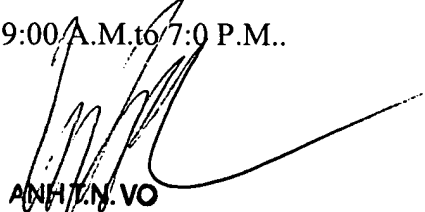
***Allowable Subject Matter***

Claims 8-9 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink container comprising an ink package that has oxygen permeability of not greater than  $1.0 \text{ mL/m}^2 \cdot 24 \text{ hr} \cdot \text{atm}$ . in the combination as claimed.

Claims 10-14 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink container-sealing wrapper assembly including an ink container comprising a sealing wrapper in which the ink container is accommodated, an interior space within the sealing wrapper existing between the ink container and the sealing wrapper is charged with an inert gas in the combination as claimed.

***CONCLUSION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:0 P.M.. The fax number of this Group 2861 is (571) 273-8300.

  
ANH T.N. VO  
PRIMARY EXAMINER  
January 22, 2006